

IN THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the instant application. The present status of each claim is indicated in parentheses following the claim number. An instruction line precedes each claim that is amended, cancelled, or added by the instant paper.

1-41 (CANCELLED)

Please **amend** claim 42 as follows:

42. (CURRENTLY AMENDED) ~~The~~An isolated or purified  
nucleic acid ~~of claim 43, wherein said~~  
~~nucleotide~~encoding a polypeptide having the amino acid  
~~sequence is of~~ SEQ ID NO:7-8, said amino acid sequence  
comprising at least one immunogenic epitope.

Please **amend** claim 43 as follows:

43. (CURRENTLY AMENDED) ~~A~~The nucleic acid ~~comprising a~~  
~~nucleotide sequence encoding a polypeptide comprising~~  
~~the amino~~of claim 42, wherein said nucleic acid  
~~sequence~~comprises nucleotides 10-1332 of SEQ ID NO:8,

~~said amino acid sequence having at least one  
immunogenic epitope.7.~~

Please **amend** claim 44 as follows:

44. (CURRENTLY AMENDED) The nucleic acid of ~~claim~~  
~~43,~~claim 42, wherein said nucleic acid is an isolated  
nucleic acid.

Please **amend** claim 45 as follows:

45. (CURRENTLY AMENDED) The nucleic acid of ~~claim~~  
~~43,~~claim 42, further comprising an expression control  
sequence operably linked to said nucleotide sequence.

Please **amend** claim 46 as follows:

46. (CURRENTLY AMENDED) The nucleic acid of ~~claim~~  
~~43,~~claim 42, wherein said expression control sequence  
comprises a promoter.

Please **amend** claim 47 as follows:

47. (CURRENTLY AMENDED) The nucleic acid of ~~claim~~  
~~43,~~claim 42, wherein said expression control sequence  
comprises an enhancer.

Please **amend** claim 48 as follows:

48. (CURRENTLY AMENDED) A method of preparing a  
polypeptide comprising a carboxy-terminal portion of  
the heavy chain of botulinum neurotoxin serotype B  
having at least one immunogenic epitope, comprising:
- ~~transfecting a cell with a nucleic acid comprising a~~  
~~nucleotide sequence encoding a polypeptide~~  
comprising the amino acid sequence of SEQ ID  
NO:8, said amino acid sequence having at least  
one immunogenic epitope; and
- culturing the transfected cell under conditions  
wherein the nucleic acid is expressed,
- wherein the cell is selected from the group consisting  
of a gram negative bacteria, a yeast, and a mammalian  
cell.
49. (PREVIOUSLY AMENDED) The method of claim 48, further  
comprising recovering from said transfected cell at

least one insoluble polypeptide comprising the amino acid sequence of SEQ ID NO:8, said amino acid sequence having at least one immunogenic epitope.

50. (PREVIOUSLY ADDED) The method of claim 48, wherein said organism is *Escherichia coli*.
51. (PREVIOUSLY ADDED) The method of claim 48, wherein said organism is *Pichia pastoris*.
52. (CANCELLED)

Please **amend** claim 53 as follows:

53. (CURRENTLY AMENDED) A method of ~~preparing~~isolating an immunogenic ~~composition comprising a~~ polypeptide comprising the amino acid sequence of SEQ ID NO:8, said amino acid sequence having at least one immunogenic epitope, comprising:

culturing a cell transfected with an expression vector comprising a nucleic acid ~~comprising a~~ nucleotide ~~sequence encoding a~~ polypeptide comprising the amino acid sequence of SEQ ID NO:8, said amino acid sequence having at least

one immunogenic epitope under conditions wherein  
the nucleic acid is expressed; and

~~recovering~~isolating from said transfected cell at  
least one insoluble polypeptide comprising the  
amino acid sequence of SEQ ID NO:8, said amino  
acid sequence having at least one immunogenic  
epitope,

wherein the cell is selected from the group consisting  
of a gram negative bacteria, a yeast, and a mammalian  
cell and wherein the recovered polypeptide is  
immunogenic.

54. (CANCELLED)

Please **amend** claim 55 as follows:

55. (CURRENTLY AMENDED) The nucleic acid of ~~claim~~  
~~43~~claim 42, wherein the AT content is less than about  
70% of the total base composition.

56. (PREVIOUSLY AMENDED) The nucleic acid of claim 55,  
wherein the AT content is less than about 60% of the  
total base composition.

57-81 (CANCELLED)

82. (PREVIOUSLY AMENDED) A recombinant host cell  
comprising the nucleic acid of claim 45.

83-84 (CANCELLED)

85. (PREVIOUSLY AMENDED) The recombinant host cell of  
claim 82, wherein said polypeptide is at least 0.75%  
(w/w) of the total cellular protein.

86. (PREVIOUSLY AMENDED) The recombinant host cell of  
claim 85, wherein said polypeptide is at least 20%  
(w/w) of the total cellular protein.